

III. REMARKS

A. Brief Summary of the Pending Claims

When the Office action was issued, claims 1-14 were pending in the application. The Office action rejected claims 1-14 under 35 U.S.C. § 103(a).

The above amendment cancels claims 2-9 and 11-14 and adds claims 15-27 to the application. Thus, after the above amendment is entered, claims 1, 10, and 15-27 will be pending in the application. Claims 1 and 10 stand rejected, and claims 15-27 are new.

B. Rejection of Claim 1 Under 35 U.S.C. § 103(a), New Claims 15-16

The Office action rejected claim 1 under 35 U.S.C. § 103(a) for allegedly being obvious in view of U.S. Patent No. 6,132,012 to Ishii (“the Ishii patent”) and U.S. Patent No. 6,669,311 to Holst et al. (“the Holst patent”).

Claim 1 has been amended above to incorporate the limitation of “the monitoring device being capable of using the output signal to determine the accumulator charge pressure, comparing the accumulator charge pressure to a pressure limit, and using the results of the comparison in generating a fault signal.” The meaning of the term “accumulator charge pressure” is discussed in paragraph 3 of the specification of the present application. One of the features of the invention of this application is that the accumulator charge pressure can be an indicator of the health of the accumulator, and that the monitoring system can detect the accumulator charge pressure and determine whether it is within an acceptable range. This feature of the invention is described, for example, in paragraphs 15 to 17 of the specification.

Neither the Ishii patent nor the Holst patent includes any discussion of identifying the accumulator charge pressure and comparing that pressure to a pressure limit for generating a fault signal.

Because neither the Ishii patent nor the Holst patent includes any teaching or suggestion for “the monitoring device being capable of using the output signal to determine

the accumulator charge pressure, comparing the accumulator charge pressure to a pressure limit, and using the results of the comparison in generating a fault signal,” the rejection under 35 § U.S.C. 103(a) should be withdrawn.

New claims 15 and 16 depend from claim 1 and should be allowable for at least the same reasons as discussed above. Claims 15 and 16 also include further limitations that distinguish over the Ishii and the Holst patents.

C. Rejection of Claim 10 Under 35 U.S.C. § 103(a), New Claims 17-20

The Office action rejected claim 10 under 35 U.S.C. § 103(a) for allegedly being obvious in view of the Ishii patent and the Holst patent.

Claim 10 has been amended above to include the limitations of “processing the output signal to estimate an accumulator charge pressure” and “comparing the estimate of the accumulator charge pressure with an ideal value.”

Neither the Ishii patent nor the Holst patent includes any teaching or suggestion relating to these limitations. For at least this reason, the rejection of claim 10 under 35 U.S.C. § 103(a) should be withdrawn.

New claims 17-20 depend from claim 10 and should be allowable for at least the same reasons as listed above. Claims 17-20 also include additional limitations which are not taught or suggested in the Ishii and Holst patents.

D. New Claims 21-27

New claims 21-24 are directed to a braking system including (among other limitations):

a monitoring device which receives the output signal of the pressure detection device, wherein the monitoring device identifies an estimate of the first pressure of the hydraulic braking fluid, and uses the estimate of the first pressure in determining whether to produce a fault signal.

This feature is discussed in the specification, for example, in paragraphs 15-17 and 24-25.

None of the prior art of record teaches or suggests the limitations of claim 21. Therefore, claim 21 should be allowable over the prior art. Claims 22-24 depend from claim 21 and should be allowable over the prior art for at least the same reasons. Claims 22-24 also include additional limitations which define over the prior art.

New claims 25-27 are directed to a braking system including (among other limitations):

a monitoring device for receiving the output signal of the pressure detection device, wherein the monitoring device samples one of the pressure of the hydraulic braking fluid in the first chamber of the accumulator, or the pressure of the precharge gas in the second chamber of the accumulator, in response to a detection of a braking system start-up, and uses the one of the sample of the hydraulic braking fluid pressure or the precharge gas pressure in determining whether to produce a fault signal.

The ability to sample either the hydraulic braking fluid pressure, or the precharge gas pressure is discussed, for example, in paragraph 13 of the specification.

None of the prior art of record teaches or suggests the limitations of claim 25. Therefore, claim 25 should be allowable over the prior art. Claims 26-27 depend from claim 25 and should be allowable over the prior art for at least the same reasons. Claims 26-27 also include additional limitations which define over the prior art.

E. Conclusion

The Office action set a shortened statutory three month reply period expiring on August 10, 2004. This response is submitted before the expiration of the reply period. The fees for the extra claims in the application can be charged to the undersigned's deposit account no. 03-1129, as indicated on the accompanying fee sheet.

Caterpillar asserts that the application is in condition for allowance, an indication of which is respectfully solicited. If any issues remain to be resolved in the application, the examiner is encouraged to telephone the undersigned assignee's representative.

Respectfully submitted,



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